REMARKS/ARGUMENTS

I. Introduction:

Claims 1, 6, 11, 16, 18, 20, and 22 are amended, claims 2, 3, 7, 8, 12, 13, 23, 24, and 25 are canceled, and new claim 29 is added herein. With entry of this amendment, claims 1, 4-6, 9-11, 14-22, and 26-29 will be pending.

Formal drawings are submitted herewith in response to the drawing objection by the Examiner.

II. Claim Rejections Under 35 U.S.C. 102 and 103:

Claims 1, 2, 4, 5-7, 9-12, 14, 15, 22, and 25 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5, 550,816 (Hardwick et al.). Claims 3, 8, 13, 16-21, and 26-28 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hardwick in view of U.S. Patent No. 6,674,756 (Rao et al.).

The Hardwick et al. patent is directed to a method and apparatus for virtual switching. A management apparatus is coupled to each virtual switch to maintain information on an association between the plurality of data interfaces and the virtual switches. A processor is coupled to each virtual switch to insert a packet into an outgoing data stream on a data port to deliver the packet. The management apparatus limits each processor to only inserting a packet on another data port associated with the same virtual switch which received the particular packet.

Rao et al. disclose a multi-service network switch with multiple virtual routers. A physical network switch is partitioned into a plurality of virtual routers were each virtual router has allocated to it a set of resources and routing tables. System resources are partitioned among the various virtual routers.

Claims 1, 6, 11, 16, 18, 20, and 22 have been amended to generally specify that the virtual network manager manages resources of the network element including processor time, memory, bandwidth, and ports. As noted by the Examiner Hardwick et al. do not teach allocating a portion of the processor time to each virtual switch and managing the allocated portion for each virtual switch. In rejecting the claims, the Examiner cited col. 9, lines 19-23 of Rao et al. This section of the patent discusses call policy parameters which dictate how an incoming call is to be routed. One of the parameters is QoA, which is used to classify users and grant access to the switch based on a comparison of their QoA level to the current resource utilization. Each QoA level is assigned a percentage of threshold resource usage. If resource utilization is below the percentage of threshold resource usage assigned to an incoming call's QoA level, the call is accepted, otherwise the call is rejected. As noted in the claims of Rao et al., usage of resources allocated to the virtual routers is monitored and filters may be used to filter data coming in to a virtual router. However, managing processor time of a network element by a virtual network element manager is not disclosed.

Furthermore, neither Hardwick et al. nor Rao et al. show or suggest managing bandwidth and port allocation.

Accordingly, claims 1, 6, 11, 16, 18, 20, and 22, as amended, are submitted as patentable over Hardwick et al. and Rao et al.

Claims 4-5 and new claim 29, depending from claim 1, claims 9-10, depending from claim 6, claims 14-15, depending from claim 11, claim 17, depending from claim 16, claim 19, depending from claim 18, claim 21 depending from claim 20, and claims 26-28, depending from claim 22, are also submitted as patentable for the reasons discussed above with respect to claims 1, 6, 11, 16, 18, 20, and 22.

IV. Conclusion:

For the foregoing reasons, Applicant believes that all of the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 399-5608.

Respectfully submitted,

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